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Job demands, resources and mental health in UK prison officers

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Abstract

Background: Research findings indicate that working as a prison officer can be highly stressful, but the aspects of work that predict their mental health status are largely unknown.

Aims: To examine, using elements of the demands-resources model, the extent to which work pressure and several potential resources (i.e. control, support from managers and co-workers, role clarity, effective working relationships and positive change management) predict mental health in a sample of UK prison officers.

Methods: The Health and Safety Executive Management Standards Indicator Tool was used to measure job demands and resources. Mental health was assessed by the General Health Questionnaire-28. The effects of demands and resources on mental health were examined via linear regression analysis with GHQ score as the outcome.

Results: The study sample comprised 1,267 prison officers (86% male). 74% met 'caseness' criteria for mental health problems. Job demands, poor interpersonal relationships, role ambiguity and, to a lesser extent, low job control and poor management of change were key predictors of mental health status.

Conclusions: The findings of this study can help occupational health practitioners and psychologists develop structured interventions to improve wellbeing among prison officers

Key words: occupational stress, mental health, work-place stress

Introduction

Workers in emergency and security services are more vulnerable to occupational stressors and strains than many other professional groups [1,2] Particularly high levels of burnout and mental health problems have been found in prison officers [1, 2, 3, 4] and their frequent exposure to violence means that post-traumatic stress disorder is common [5]. Recent studies using the General Health Questionnaire (GHQ) [6] to assess the mental health of staff working in two separate prisons in England found that 57% [7] and 95% [8] of respondents respectively met the criteria for mental health problems at a level at which some intervention is recommended. Although these studies had small samples their findings give cause for concern for the wellbeing of correctional staff. Research conducted in several countries has identified some of the work-related stressors experienced by prison officers. High workload has consistently emerged as a major source of stress [3, 9, 10], along with lack of personal safety, poor physical working conditions, low pay, long unsocial hours, low autonomy and role difficulties [1, 8, 10]. Other studies have highlighted interpersonal stressors, such as bullying and harassment, and a lack of social support from managers and co-workers as among the most stressful features of front-line correctional work (1, 6, 10, 12]. The prison population in the UK has steadily increased and staffing levels reduced [13], which will inevitably increase workloads and intensify the pressure experienced by correctional staff.

Although existing studies offer insight into the stressors and strains experienced by workers in correctional settings, theoretical models have rarely been used. Models of job-related stress can identify the job characteristics that can increase the risk of mental health problems in different occupational contexts, as well as those that might alleviate them. A study that used the effort-reward imbalance model (ERI) [14] to examine work stress in Canadian correctional officers found that those who perceived a lack of equity between efforts

expended and rewards received tended to report poorer mental health [12]. The widely-used job demand-control-support model (JDC(S)) [15, 16] has also been tested in correctional settings. Two separate studies of Australian prison officers found that a combination of high demands, low control and low support was associated with a greater risk of psychological distress [17, 18]. The ERI and JDC(S) models have clear potential to inform interventions to improve employee wellbeing by identifying whether perceptions of rewards, control and social support can offset the negative effects of job-related efforts and demands. In this study, we used the job demands-resources model (JDR) [19] as it allows the inclusion of a wider range of factors that have the potential to protect the wellbeing of employees. According to the JDR model demands are the physical, social or organisational aspects of the job that require sustained mental or physical effort and, as such, can deplete energy and impair health. Conversely, job resources are the features of work that can help employees meet their goals and protect their wellbeing [19]. This study examined the main effects of demands and several potential resources on mental health: job control, support from managers and co-workers, role clarity, good working relationships and effective management of change. Each of these factors has previously been associated with wellbeing in workers in correctional settings [1, 8, 9, 12, 17, 18]. It was anticipated that the findings would highlight the resources that have the strongest potential to improve the mental health of people working in correctional settings and inform targeted interventions.

Methods

Data were obtained by an online survey. A link to this survey was provided on the website of the Prison Officer Association, which represents the majority of officers employed in the UK. Sex, age and length of employment in the prison service were also assessed. Job demands and resources were measured using the 35-item self-report Indicator Tool [20]. This assesses

employees' perceptions of seven characteristics of work: demands, control, managerial support, peer support, relationships, role and change. Each item was scored on a five-point response scale from 1 (never) to 5 (always). Mean scores were calculated across each of the categories, with higher scores on the demands sub-scale representing more demands and higher scores on each of the resources sub-scales representing more satisfaction.

Mental health was assessed by the General Health Questionnaire (GHQ-28) [6]. This measure is commonly used to assess minor psychiatric disorders in workplace settings, and extensive occupational norms are available [21, 22]. The GHQ-28 assesses four key dimensions of mental health: anxiety/insomnia, depression, social dysfunction and somatic symptoms.

Participants are asked to indicate the frequency or severity with which they have experienced a range of symptoms compared to how they feel 'normally'. All items have a 4-point scoring system ranging from 'better/healthier than usual', to 'much worse/more than usual'. Two methods of scoring were used in this study [6]. Using a Likert system, where item responses are scored from 0 to 3, mean scores were calculated and used as the outcome variable in linear regression. Additionally, respondents were classified as 'cases' using a binary method of scoring, where the two least symptomatic answers are coded as 0 and the two most symptomatic answers are coded as 1. The resulting scores are summed and any respondent exceeding a threshold value of 4 is classified as a case, indicating a likely requirement for intervention if they were to present with similar symptoms in general practice [6, 21]. The caseness rate is represented by a percentage of the sample which is compared with caseness rates found in previous studies conducted in the prison sector in the UK.

Linear regression was used to test the main effects of demands and each of the resources on mental health, with the mean GHQ score as the dependent variable. Gender and age were

entered in ~~S~~step 1 to control for their potential effects and demands, together with the six potential resources, were entered in the second step to examine their main effects. This research was approved by the ethics committee of the Research Centre for Applied Psychology at the University of Bedfordshire.

Results

The survey was completed by 1,474 officers working on a full-time basis in prisons housing adult and young offenders across England, Wales, Scotland and Northern Ireland. The majority of respondents were male (86%) and their age ranged from 20 to 67 with a mean of 47 (*SD* = 7.88). Length of employment in the prison service ranged from 6 months to 36 years with a mean of 17 years (*SD* = 7.50). Mean scores and Cronbach alphas for each of the work characteristic variables and the GHQ-28 are shown in Table 1. The mean level of demand was high (3.3 on a 5-point scale) whereas perceptions of change management, control and manager support were generally poor (2.2, 2.4 and 2.6 respectively). 74% of the sample achieved scores on the GHQ-28 above the threshold of 4, indicating a likely case.

TABLE 1 ABOUT HERE

Table 2 reports the main effects of job demands and the six resource variables on mental health. A total of 39% of the variance in GHQ score was explained by the model. Age and gender, entered in step 1, explained 1% of the variance with age negatively associated with GHQ score (β = 0.10, p<0.01). The main effects of job demands and the combined resources accounted for a total of 38% of the variance, with the strongest contributions made by demands (β = 0.24, p<0.001), relationships (β = -0.26, p<0.001) and role (β = -0.17, p<0.001). Control (β = -0.07, p<0.05) and change (β = -0.06, p<0.05) had weaker negative

effects on mental health status. No significant main effects were found for support from either managers or co-workers.

TABLE 2 ABOUT HERE

Discussion

This study found that perceptions of excessive job demands, encompassing workload, intensity and working hours, had particularly powerful effects on mental health status, whereas positive working relationships and role clarity were protective. Two further resources, job control and effective management of change, were also significant predictors of mental health, but their effects were generally weaker. It should be noted, however, that the mean scores for control and change management were the lowest found in the study, suggesting that their ability to protect mental health is limited.

Support from managers or co-workers was not a significant predictor of mental health status. This is surprising as the protective effects of social support in correctional settings has been previously highlighted [7, 10, 17, 23]. As with control and change however the extent of support available to officers, particularly from managers, may be insufficient to benefit their mental health. Although perceptions of support from co-workers were generally more favourable, the heavy workloads found in this study may limit the amount of mutual support colleagues can provide. Moreover, the lack of clarity about duties and responsibilities found in this study may mean that officers do not see the provision of support to be part of their role. It is also possible that the type of support offered by managers and co-workers is not a good match for the needs of prison staff. Future research should examine the stress-support matching hypothesis [24], whereby the impact of support on wellbeing depends on the 'fit'

between the type of demand and the assistance received. For example, emotional support will be more appropriate than more instrumental support when officers are experiencing emotional demands. This may help target appropriate interventions to improve support and wellbeing as well as improve working relationships. In accordance with the findings of other research conducted in UK prisons, the caseness rate of mental health problems found in this study was considerably higher than many other 'highly stressed' occupational groups, including other emergency and security services [6,7, 22]. Symptoms such as depression, insomnia, anxiety and social dysfunction will not only impair the quality of life of prison officers, but also have serious implications for the wellbeing of co-workers and the prison population. There is a clear need therefore to develop effective interventions to improve staff wellbeing in the prison sector in the UK.

This study has several limitations. It relies on self-report data and its correlational design cannot establish causality. A further limitation relates to the sampling strategy. Online surveys are recommended when investigating sensitive issues in occupational groups that require strict safeguards to protect confidentiality [25]. Nonetheless calculating a response rate is not possible as the number of participants exposed to this survey is unknown. The demographic profile of the respondents indicates that they were broadly representative of the wider population of officers in the UK at the time the research was conducted [26], but it is acknowledged that the findings may not capture the views and experiences of the wider population. The risk of response bias in occupational stress research has also been highlighted [27]. Individual difference and contextual factor, such as negative affectivity and stressors experienced in personal life, could have contributed to self-reported mental health problems, as could a tendency for officers who were particularly highly stressed to complete

the questionnaire. Future research should use stratified sampling techniques and control for these potentially confounding factors.

The strong main effects of demands and several resources on the mental health of prison officers supports the relevance of the JDR model in correctional settings. Resources such as positive interpersonal relationships and role clarity appear to be more important to the mental health of prison officers than more 'traditional' protective factors such as job control and support. Future studies could examine other demands and resources of relevance to the wellbeing of prison officers using a JDR framework. Recent research findings suggest that experiences of violence and harassment, perceptions of organisational justice, workplace safety climate and opportunities for 'off the job' recovery might be particularly fruitful [28, 29]. The JDR model could be used to frame interventions in the prison sector by optimising the most salient resources [30]. The findings of this study have highlighted several key priorities for intervention such as improving the quality of relationships at work and increasing role clarity. Nonetheless the powerful effects of job demands on the mental health of prison officers and the low level of perceived support from managers indicates that these areas should be the primary focus of attention.

Key points

- A high proportion of UK prison officers in this study (75%) reported a caseness level of mental health symptoms, exceeding that found in studies of employees in other emergency and security services.
- Job demands were strong predictors of mental health problems. Good working relationships and role clarity appear to be more beneficial for wellbeing than more established resources such as job control and support.

- Perceptions of support from managers was particularly low and unrelated to mental health status. Interventions to enhance support are clearly required.

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Table 1: Descriptive data and internal consistency for each of the study variables

Variable	*mean (SD)*	*Range*	*Cronbach alpha*
Demands	3.31 (0.68)	1 – 5	0.86
Control	2.38 (0.71)	1 – 5	0.81
Manager support	2.56 (0.84)	1 – 5	0.85
Peer support	3.46 (0.71)	1 – 5	0.80
Role	3.56 (0.72)	1 – 5	0.85
Relationships	3.22 (0.76)	1 – 5	0.73
Change	2.19 (0.73)	1 – 5	0.75
GHQ-28 (Likert)	1.28 (0.52)	0 - 3	0.95

TABLE 2: Linear regression showing the main effects of demands and resources on mental health symptoms (GHQ scores)

Predictors	GHQ scores
Gender	-0.02
Age	-0.10***
Step 1 R^2	*0.01***
Demands	0.24***
Control	-0.07*
Manager support	-0.00
Co-worker support	-0.02
Role	-0.17***
Relationships	-0.26***
Change	-0.06*
Step 2 R^2	*0.38****
Total R^2	**0.39**

*** p <0.001; ** p <0.01; * p<0.05